

**HARLAN SAFETY DAYS MINE RESCUE CONTEST
SUPERINTENDENT STATEMENT
JULY 26, 2012**

Thank you for coming to help us. You are located at the fresh air base outby the 001 section of the SEKCC Cumberland Mountain mine. This is a one section mine that has just recently connected to a ventilation air shaft in the #1 entry about four breaks inby this FAB.

Yesterday on second shift, the nine member crew was sent to the section to produce coal as usual. Around 9 pm last night, there was an incident that happened. There was a loud rush of air out the portals, and a big spike in the pressure recording device on the fan. The Responsible Person tried to contact the section, but did not get anyone. We reported this to MSHA and OMSL and contacted mine rescue teams. As our company teams were exploring, they found three of the section's crew members in an outby refuge alternative. They had been outby working on a belt drive, and used SCSRs to reach the RA. They were brought to the surface. The teams continued exploring and established this fresh air base as they were running out of oxygen. The entire mine outby this area has been explored and can be ventilated through.

This mine has a blowing fan that is on and operated and being guarded. Air enters the section in the #3 entry and exits out the #1 entry. The fan cannot be stopped, stalled, or reversed. All underground power has been de-energized, and is locked and tagged out and being guarded.

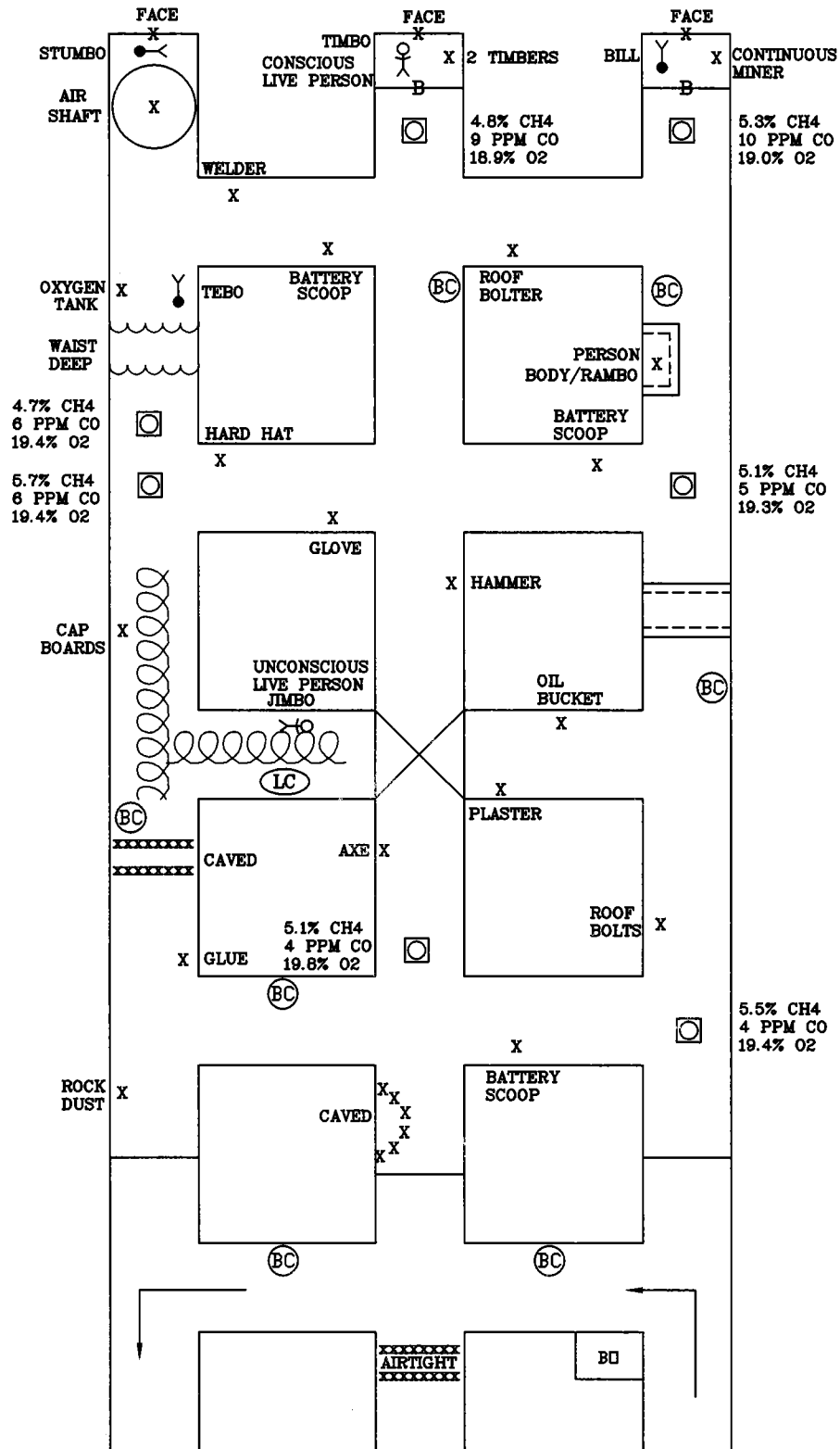
This mine has a history of bad top and methane. The mine maps are up to date. We have a competent life line person to give and take life line signals if necessary. There are back up and standby teams ready to assist you.

Once your team goes inby, the Briefing Officer will be stationed in an airtight isolation area and you only will be able to contact him through your communication system.

Please find the missing miners. Thank you and good luck.

Day #2

Scale: 1 inch = 20 feet



PROBLEM

**AIRLOCK INTO THE SECTION
THROUGH THE #2 ENTRY**

**EXPLORE ALL AREAS OF THE MINE
THAT CAN BE DONE SO SAFELY**

**ACCOUNT FOR ALL MISSING MINERS
AND BRING SURVIVORS TO THE
SURFACE**

**REPORT THE NAMES OF THE MISSING
MINERS TO THE SUPERINTENDENT
BEFORE LEAVING THE TEAM STOP
WHERE THE CAPTAIN TOUCHES THEM**

**YOU CAN ONLY CARRY TWO SETS OF
BRATTICE CLOTH WITH YOU AT A TIME**

**YOU HAVE 75 MINUTES TO WORK
BEFORE BEING REPLACED BY ANOTHER
TEAM**

NAMES OF MISSING MINERS

JIMBO _____

RAMBO _____

TEBO _____

STUMBO _____

TIMBO _____

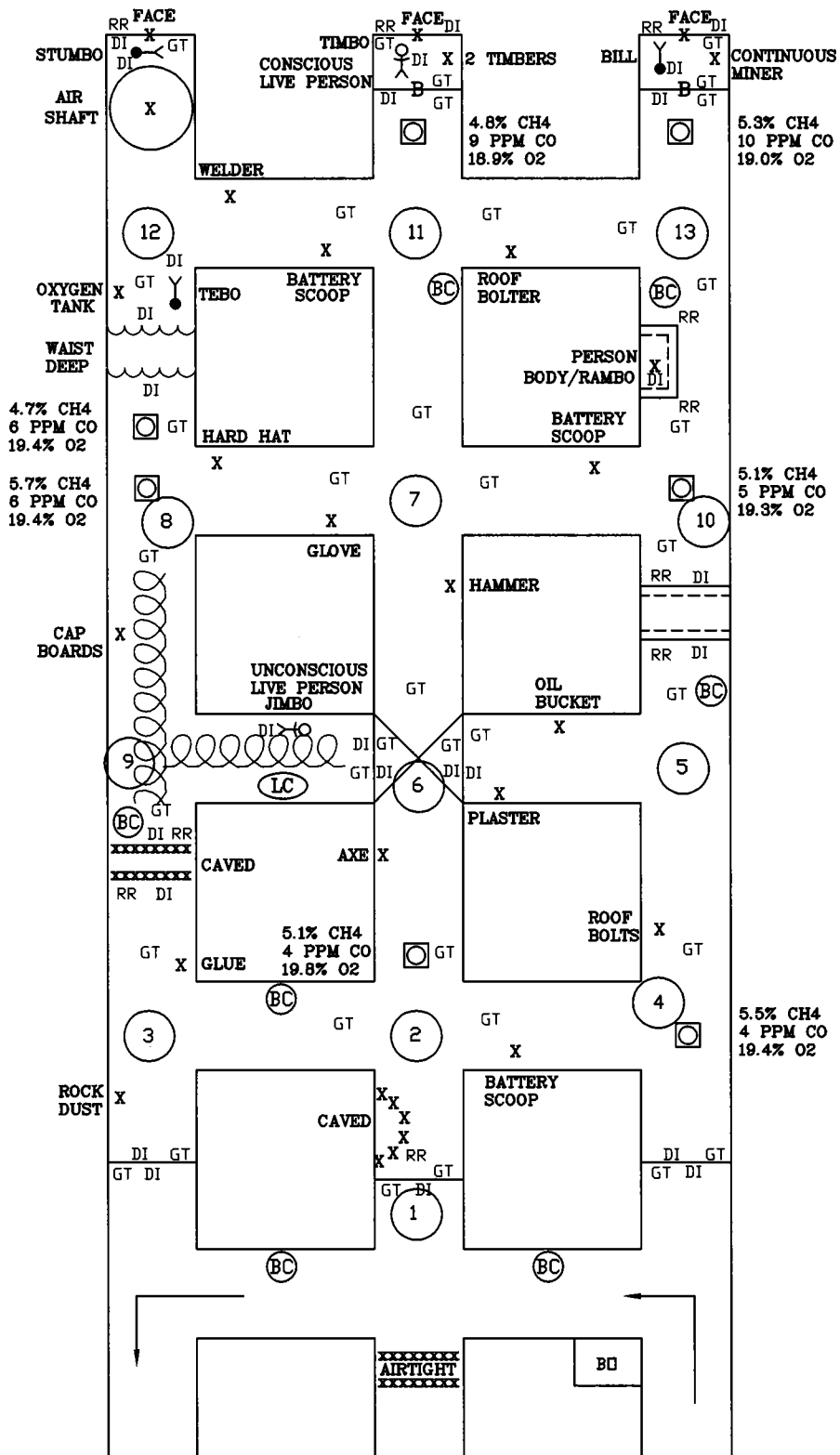
BILL _____

BARRICADE PATIENT STATEMENT

**HELP!! GET ME OUT OF HERE! IT IS
AIRTIGHT BEHIND ME.**

TEAM STOP

Scale: 1 inch = 20 feet



**HARLAN SAFETY DAYS MINE RESCUE CONTEST
JULY 26, 2012**

JUDGE'S BRIEFING

Fresh Air Base Exploration

After the clock has been started, the team will explore all three openings inby the fresh air base (FAB). The team will find a temporary stopping in all three openings. The captain must date and initial (DI) at each temporary stopping, and a gas test (GT) must be made at each temporary stopping. At this time the team must airlock to breach one of the temporary stoppings to continue exploration. Since the written problem instructed the team to begin exploration in the #2 entry, the team must airlock in the #2 entry. After the team builds the airlock with the entire team inby the FAB, the briefing officer will be isolated from the team for the remainder of the problem.

Team Stop #1

After the team is in the airlock, the 50 foot apparatus check must be made before the team leaves that stop. After the temporary stopping is breached, the captain must make a GT before anyone enters the area. Inby the temporary stopping, the team will find a caved area. The captain must make a zigzag roof and rib (RR) test before any other team member enters the area.

Team Stop #2

The team will advance to the first intersection in the #2 entry inby the FAB. A GT must be made in the openings inby, left, and right of the intersection. The team will find an explosive mixture in the entry inby the intersection.

Team Stop #3

The team can tie across either to the left or right. For purposes of this briefing, we will assume the team ties across to the intersection in the #1 entry. The team will find the backside of the temporary stopping in the #1 entry outby the intersection, and a caved area inby the intersection. The captain must DI at the temporary stopping and the caved area. A GT must be made at the temporary stopping and in the entry inby the intersection. The captain must make a RR test at the caved area.

Team Stop #4

The team will tie across to the intersection in the #3 entry. The team will find the backside of the temporary stopping outby the intersection and an explosive/irrespirable atmosphere in the intersection. The captain must DI at

the temporary stopping, and a GT must be made at the temporary stopping and in the entry inby the intersection.

Team Stop #5

The team can advance in either the #2 or #3 entry. For purposes of this briefing, we will assume the team advances in the #3 entry. The team will advance to the intersection in the second line of crosscuts inby the FAB. The team will find an area of unsafe roof inby the intersection and a wall of an overcast in the crosscut to the left of the intersection. A GT must be made at the wall of the overcast and in the entry inby the intersection. The captain must do a RR test at the unsafe roof, and the captain must DI at the wall of the overcast and at the unsafe roof.

Team Stop #6

The team will advance to the intersection in the # 2 entry in the second line of crosscuts. The team will find there is an overcast in this intersection. The captain must DI both walls of the overcast, and a GT must be made at both walls and in the entry inby the intersection.

Team Stop #7

The team will advance in the # 2 entry to the intersection in the third line of crosscuts. A GT must be made in the openings inby, left, and right of the intersection.

Team Stop #8

The team can tie across to either the #1 or #3 entry. For purposes of this briefing, we will assume the team will tie across into intersection in the #1 entry. The team will find an explosive/irrespirable atmosphere in the intersection and an irrespirable atmosphere just inby the intersection in the #1 entry. The team will find an area of waist deep water inby the intersection and smoke outby the intersection. A GT must be made inby and outby the intersection, and the captain must DI at the waist deep water.

Team Stop #9

The team will tie behind in the #1 entry to the intersection in the second line of crosscuts. Since the team will be in smoke, they must be on a lifeline and stay on the lifeline/linkline. The team will find the backside of the caved area in the entry outby the intersection. The team will find an unconscious live person in the crosscut to the right, along with a wall of the overcast. The captain must stop and touch the patient before passing the patient, and the captain must DI at the patient. The captain can do the initial assessment or let another team member do it. Since the patient is in smoke, a breathing apparatus must be put on the patient before moving the patient. The captain must do a RR test at the cave area, and must DI at the caved area and the wall of the overcast. A GT must be

made at the wall of the overcast and in the entry outby the intersection. The team must report the name of the missing miner to the superintendent before leaving this team stop. The team will bring the patient to the FAB.

Team Stop #10

The team will travel back into the mine and advance to the intersection in the #3 entry in the third line of crosscuts inby the FAB. The team will find an explosive/irrespirable atmosphere in the intersection, the backside of the unsafe roof outby the intersection, and an area of elongated unsafe roof with a person placard under the unsafe roof inby the intersection. The captain must do a RR test at the unsafe roof, and a zigzag RR test at the elongated unsafe roof before any other team member enters those areas. A GT must be made inby and outby the intersection. The captain must DI at the unsafe roof outby the intersection. Since the person can't be reached at this time, the captain does not have to DI at the patient's location. The team will continue to explore.

Team Stop #11

The team must advance in the # 2 entry to the intersection in the 4th line of crosscuts because of the contaminant in the # 1 entry. The team will find a barricade with an irrespirable atmosphere in front of it in the heading inby the intersection. The conscious live person will read a statement, and the team is now tied to this patient. A GT must be made in the openings to the left and right of the intersection and at the barricade. The captain must DI at the barricade. Since the team can't ventilate the barricade at this time, the team must continue to explore.

Team Stop #12

The team will tie across to the intersection in the #1 entry to look for the extent of the contaminant in that entry. The team will find a body outby the intersection. The captain must stop and DI at the body before passing the body. The team will find the backside of the waist deep water outby the intersection. The captain must DI at the waist deep water. A GT must be made in the opening outby the intersection. Inby the intersection, the team will find an air shaft, a body, and a face. The captain must stop and touch the body before passing the body, and the captain must DI at the body. The captain must do a RR test and DI at the face, and a GT must be made at the face. The team must report the names of the missing miners to the superintendent before leaving this team stop. Since the team can now ventilate the barricade, they must do so before going to team stop #13, or it will be a delay of the patient.

See Ventilation #1

See Ventilation #2

After the team has done both required ventilations, they team can breach the barricade in the #2 heading. Since the patient told the team it was airtight behind him, the team does not have to airlock to breach the barricade. The captain must do a GT after breaching the barricade and before any work is done. The captain must stop and touch the patient before passing the patient, and must DI at the patient. The team will find a face inby the patient. The captain must do a RR test and must DI at the face, and the team must make a GT at the face. The team must report the name of the patient to the superintendent before leaving this team stop. The team will also find two timbers, but they must take this patient to the FAB before using the timbers. After bringing the patient to the FAB, the team must go back to the elongated unsafe roof in the #3 entry. The captain will set the timbers, touch the person. The person will then be a body. The captain must DI at the body. The team must report the name of the missing miner to the superintendent before advancing.

Team Stop #13

The team will advance to the intersection in the #3 entry in the 4th line of crosscuts inby the FAB. The team will find a barricade in the heading. There is no response from behind the barricade, but there is still one missing miner to account for. The captain must DI at the barricade, and a GT must be made at the barricade and in the opening to the left or outby the intersection, depending on direction of team travel. The team must ventilate this barricade before breaching it.

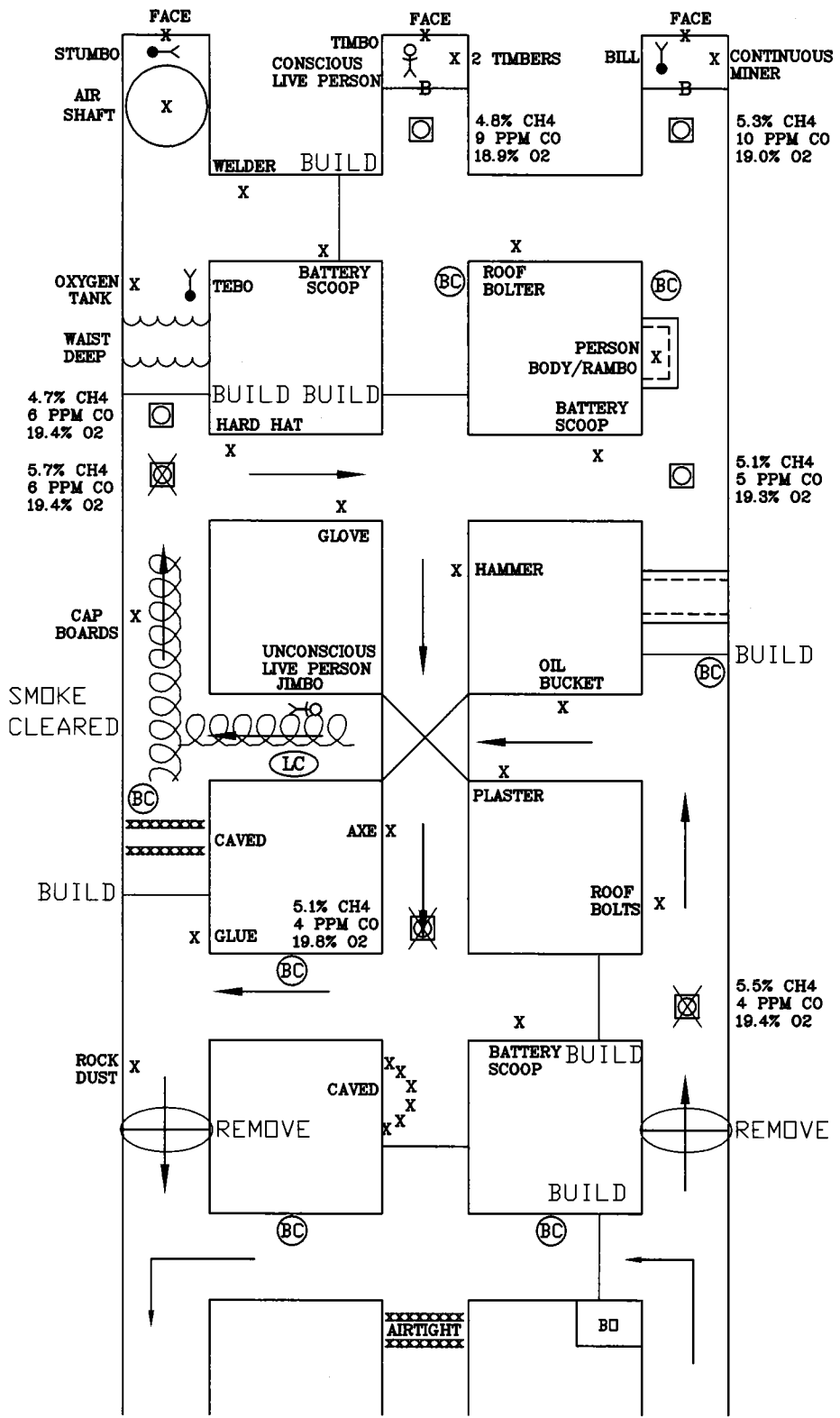
See Ventilation #3

After ventilating the barricade, the team must airlock before breaching the barricade. The captain must make a GT inby the barricade before any other work is done. The team will find a body and a face inby the barricade. The captain must stop and touch the body before passing the body, and must DI at the body. The team must report the name of the missing miner to the superintendent before leaving this team stop. The captain must make a RR test and DI at the face, and a GT must be made at the face.

At this time the problem is complete. The team will return to the FAB and stop the clock.

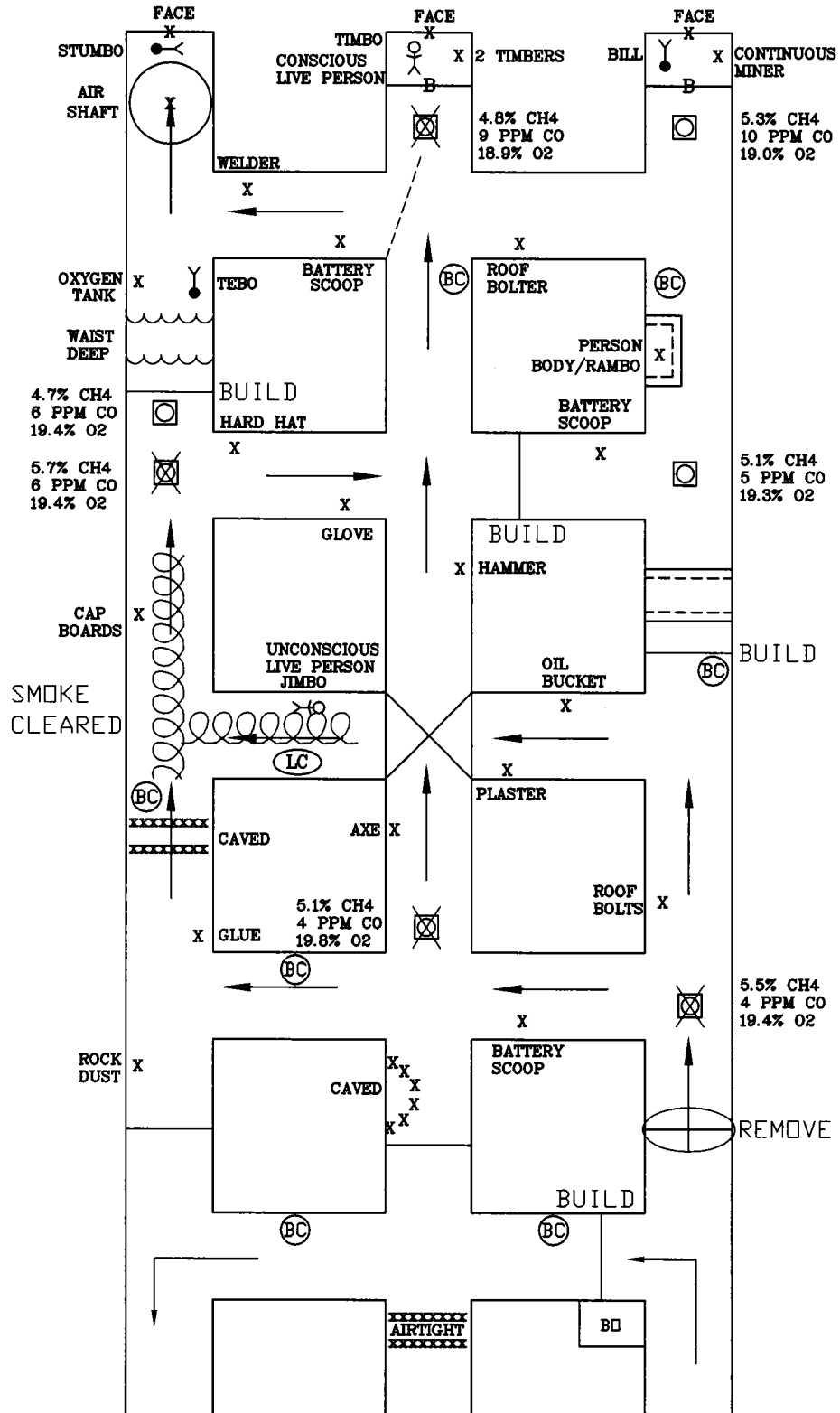
VENTILATION # 1

Scale: 1 inch = 20 feet



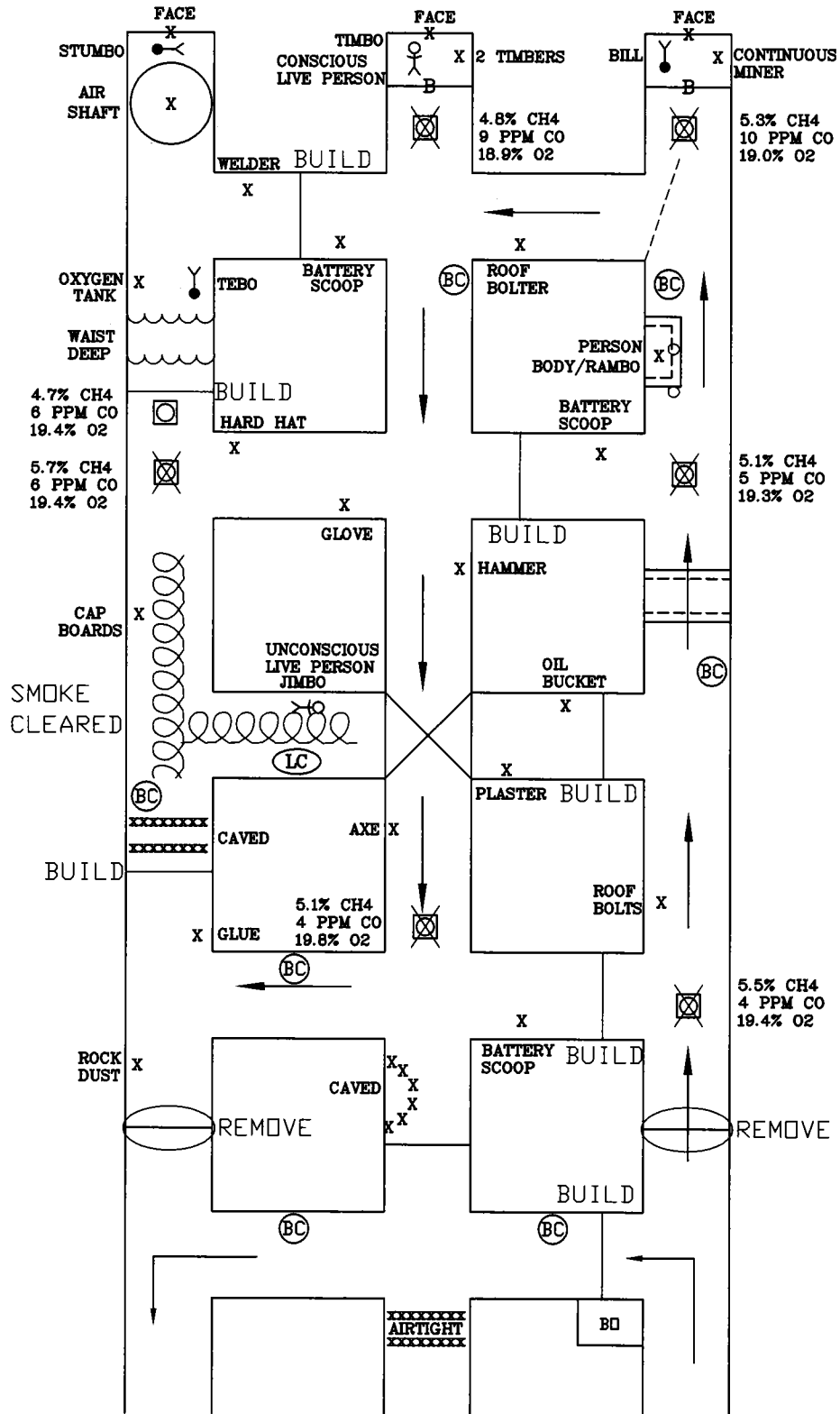
VENTILATION # 2

Scale: 1 inch = 20 feet



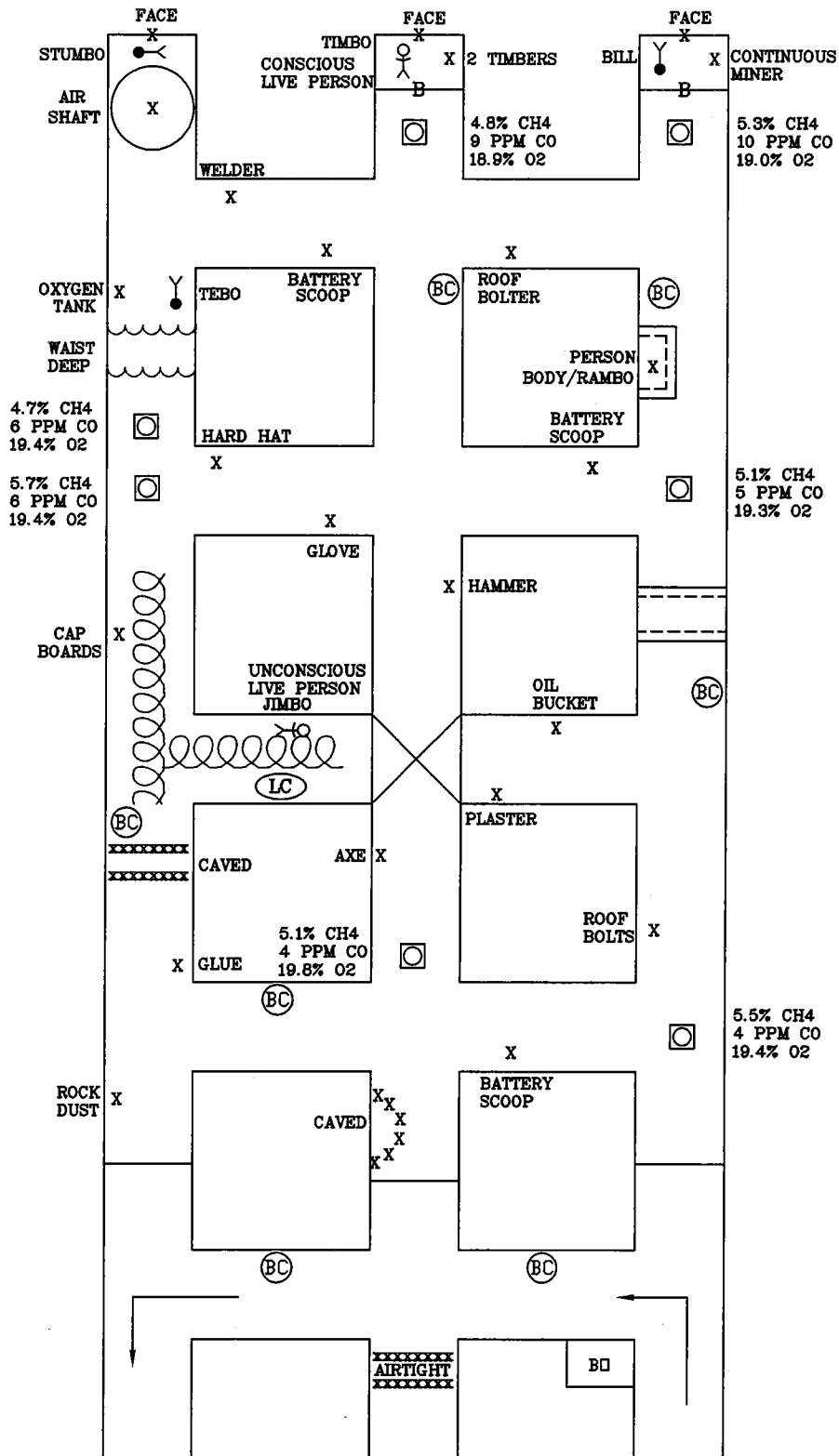
VENTILATION # 3

Scale: 1 inch = 20 feet



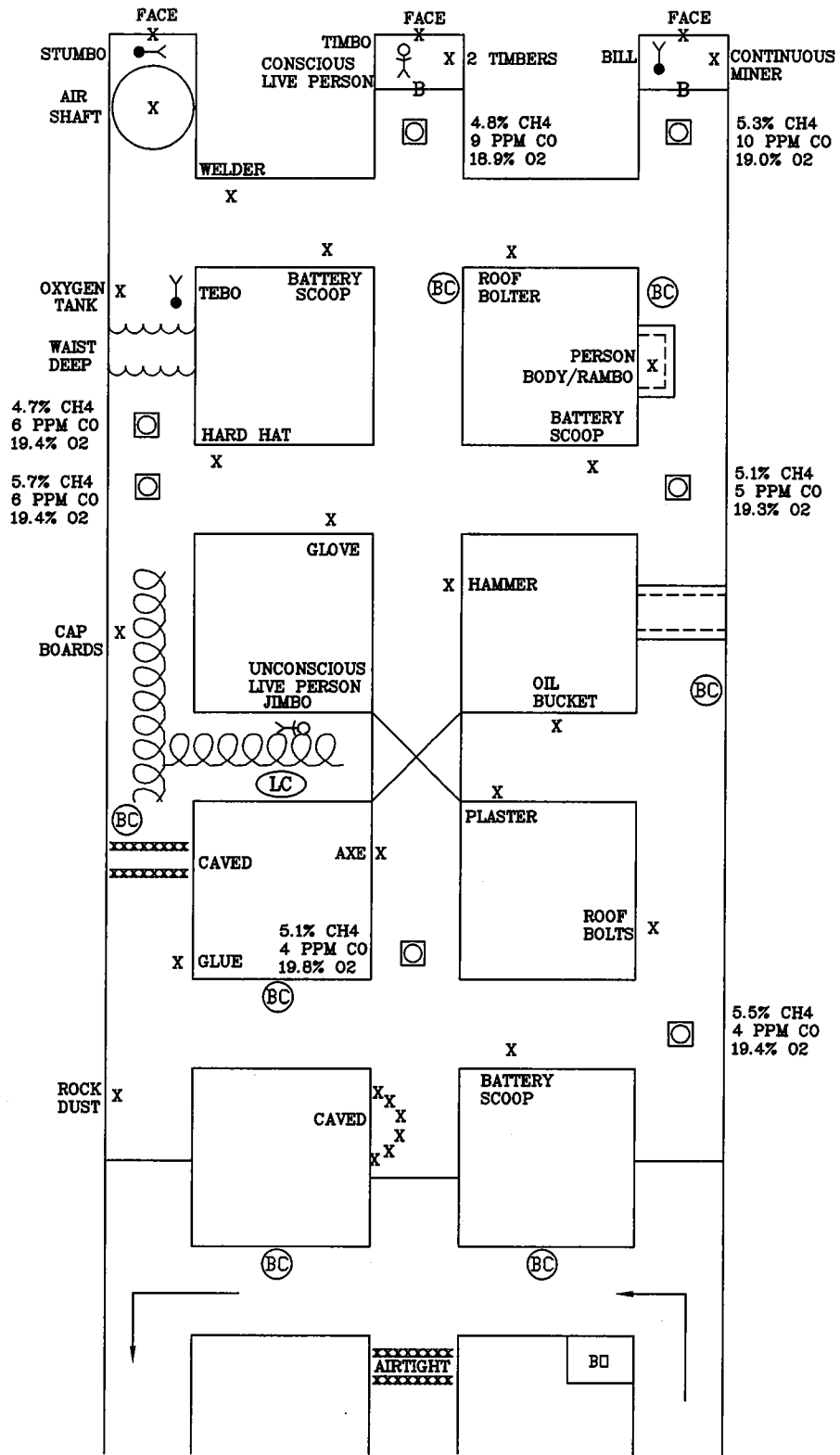
Day #2

Scale: 1 inch = 20 feet



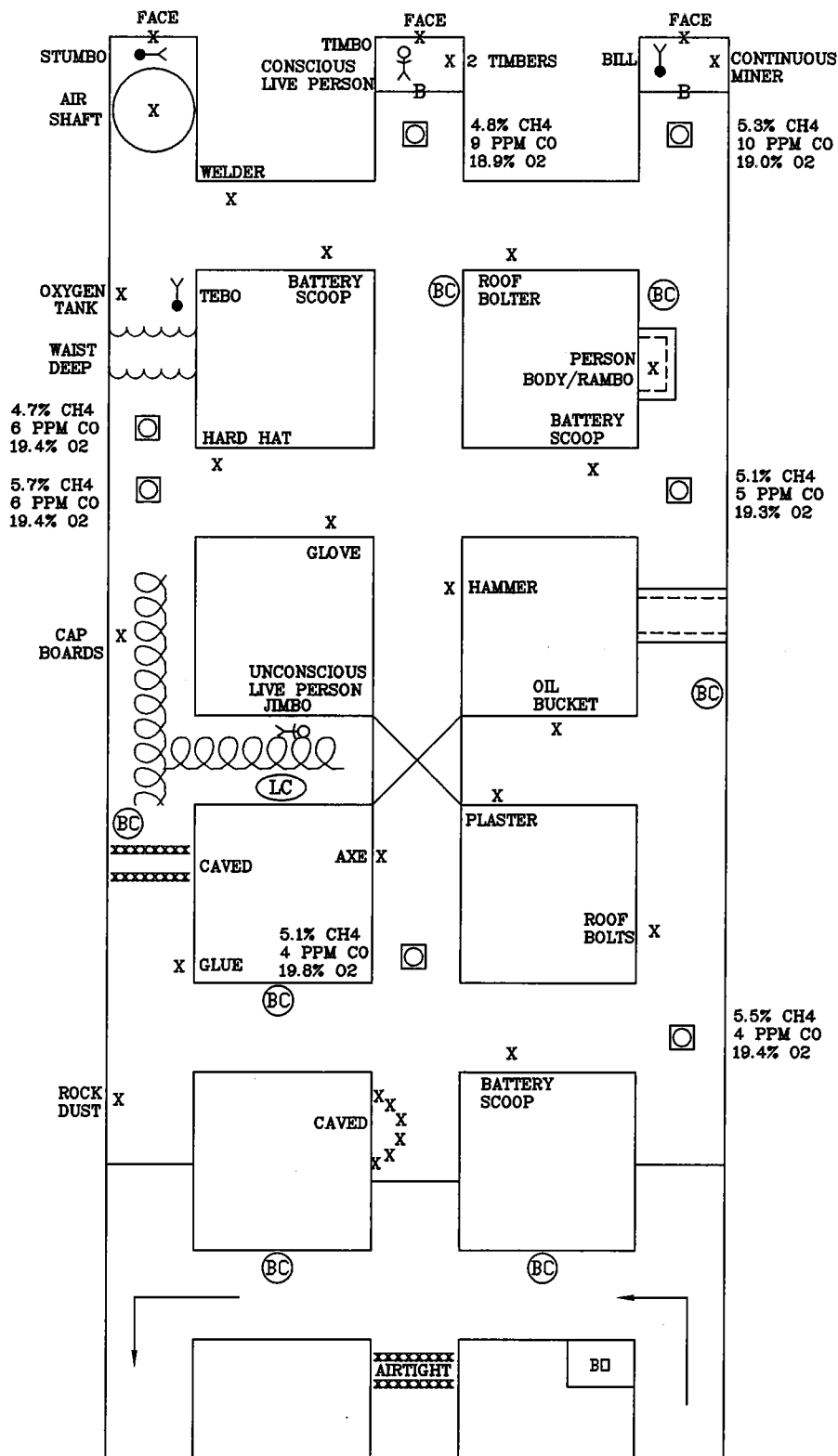
Day #2

Scale: 1 inch = 20 feet



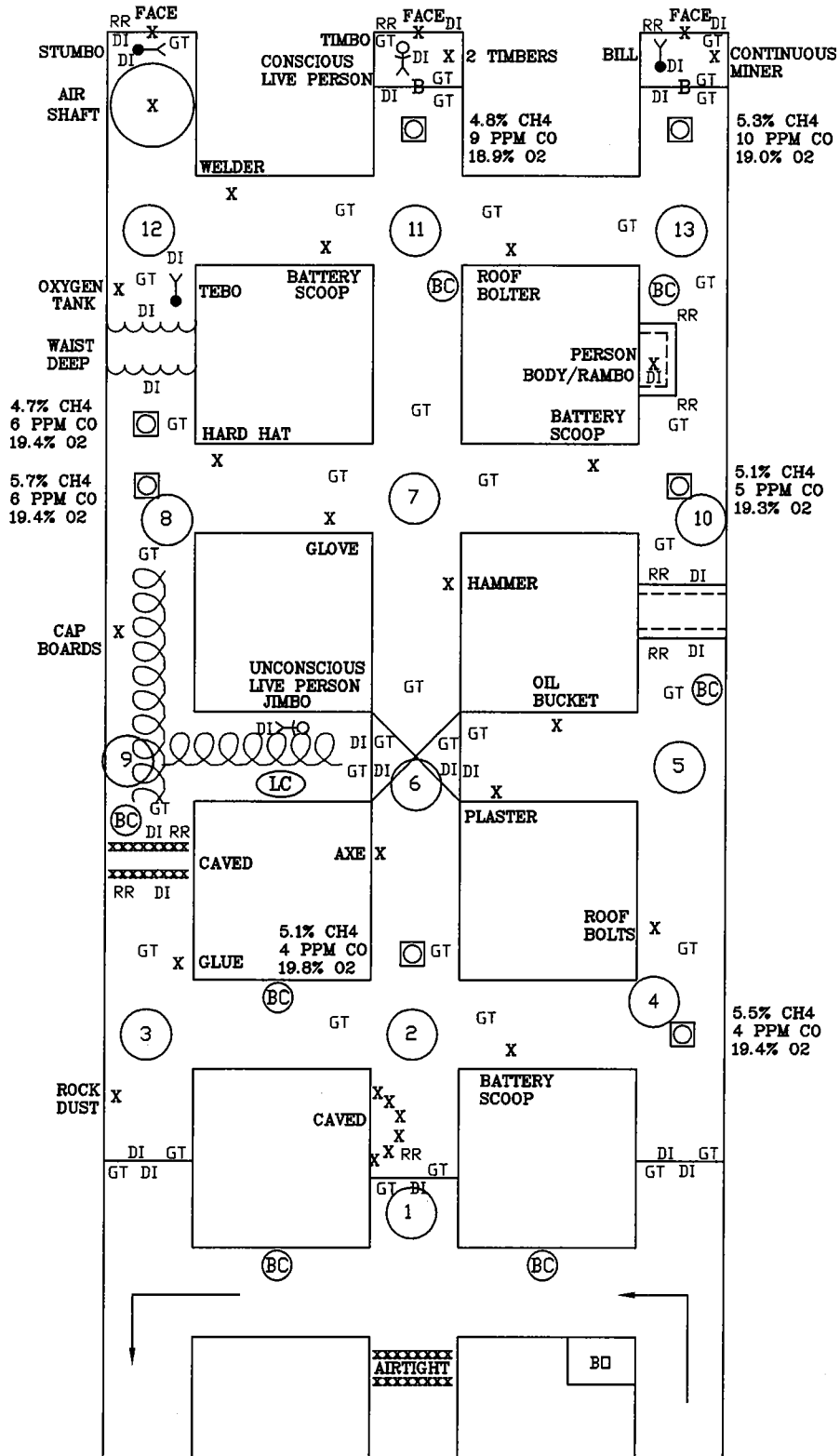
Day #2

Scale: 1 inch = 20 feet



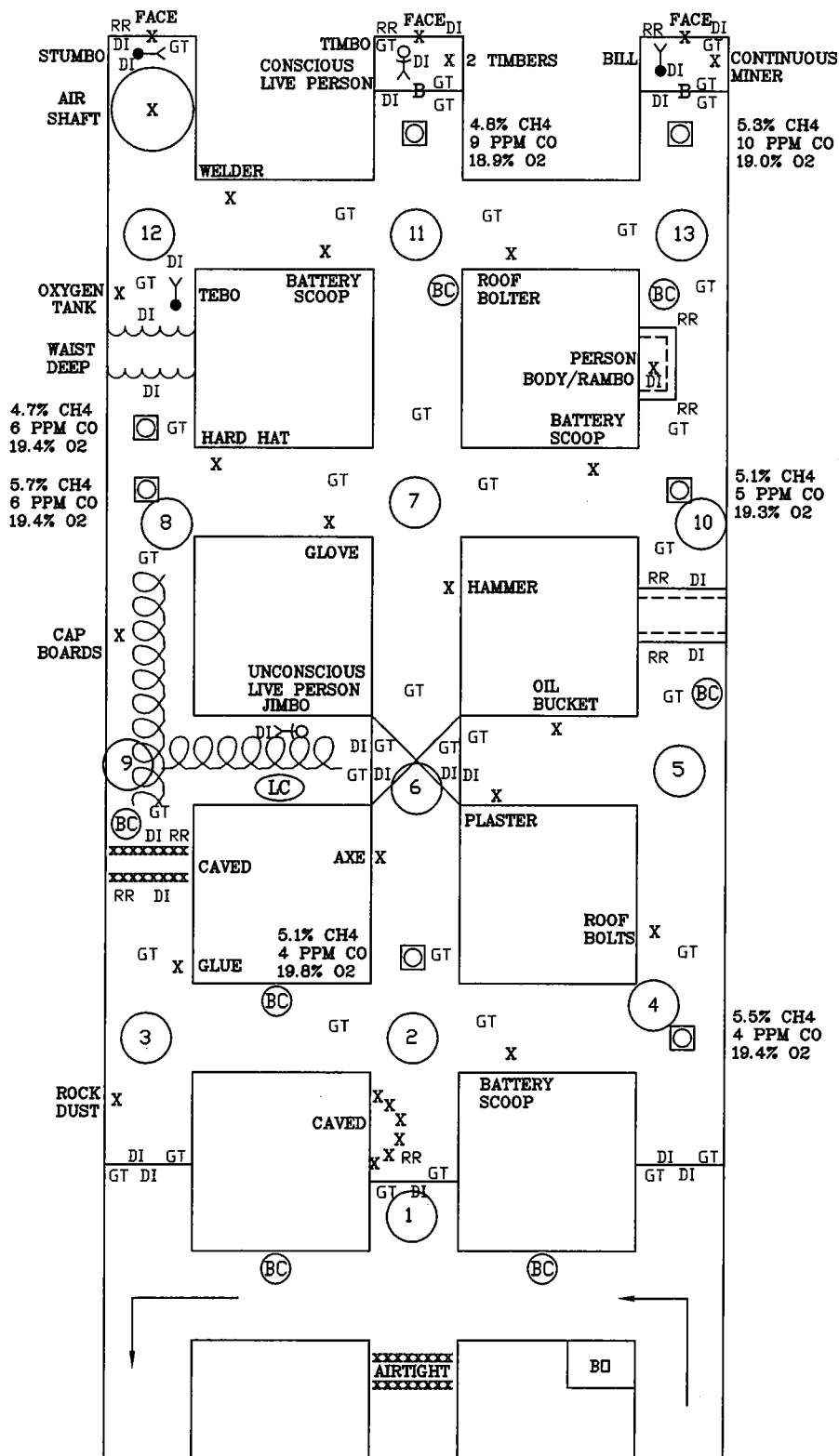
TEAM STOP

Scale: 1 inch = 20 feet



TEAM STOP

Scale: 1 inch = 20 feet



FINAL VENTILATION

